

THE FURTHER DISCOVERY OF DUGONG BONES ON THE COAST OF NEW SOUTH WALES.

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(Plate iv.)

For an opportunity of again recording the occurrence of bones of the Dugong (*Halicore dugong*, Gmelin, sp.) on the coast of New South Wales, I am indebted to Mr. P. E. Williams, Comptroller of the Government Savings Bank, and Secretary to the Sydney Ethnological Committee.

During the excavation of Shea's Creek, Cook River, Botany Bay, for the canal bearing the same name, portions of a Dugong skeleton were discovered near the top of the estuarine clay, and just above the extensive estuarine shell bed which is so marked a stratigraphical feature in the alluvial section laid bare by the canal cutting. "They were five feet six inches to eight feet six inches below the present high-water level, and a total depth of four feet six inches to seven feet six inches below the swamp surface level, previous to excavation."¹ The bones recovered were vertebrae, ribs, and the nearly perfect skull. It was pointed out by Messrs. T. W. E. David, J. W. Grimshaw, and the writer, that the present southerly limit of the Dugong is probably Wide Bay, on the Queensland coast, although it was formerly to be caught in Moreton Bay.² Only two reliable records of the

¹ Etheridge, David, and Grimshaw—Journ. Roy. Soc. N.S. Wales, xxx 1896, p. 171.

² I have since learned that the Dugong is still caught in Moreton Bay. Mr. C. Hedley has called my attention to a footnote in Britton and Bladon's "History of New South Wales" (ii., 1894, p. 97) quoting a paragraph from Collins, which reads as follows:—"About this time (March, 1795), the spirit of inquiry being on foot, Mr. Cummings, an officer of the Corps, made an excursion to the southward of Botany Bay, and brought back with him some of the head bones of a marine animal, which on inspection Captain [William] Patterson the only naturalist in the country, pronounced to have belonged to the animal described by M. de Buffon, and named by him the Manatee (Collins—Acc. English Colony N.S.W., 1st Ed., i., p. 409.)" The wording in the second edition differs slightly. If for Manatee we read Dugong we have confirmatory evidence of the Shea's Creek occurrence, and at a slightly more southern locality.

Dugong's presence on the coast of New South Wales, *i.e.*, further south than either of those mentioned, are extant, viz., at the Tweed and Richmond Rivers³, and Broken Bay, immediately to the north of Port Jackson.⁴

The chief point of interest in connection with these bones from Shea's Creek was the presence of transverse and oblique curved cuts and scars, particularly on the ribs at their outer or distal ends, as if produced by a blunt-edged cutting or chopping instrument. No doubt whatever was entertained by my co-writers and myself that such was the origin of these markings. The fact was used as corroborative evidence, pointing to the occupancy of this part of the coast by man at a much earlier date than previously supposed. It was felt at the time that any additional facts relating to the Dugong's presence so far below its usual haunts would be most welcome.

The fortunate discovery of Dugong bones by Mr. C. A. Rudder in a large kitchen-midden on "Arakoon" at the entrance of the Macleay River, supplies the needed evidence. The midden in question lay about one and a-half miles from the ocean and was in course of removal for the construction of oyster beds. It consisted of shells, black sand, and stones with oysters attached, in diameter about thirty feet, and seven feet in thickness. The bones found near the bottom of the midden are four rib pieces, portion of a large worn molar tooth, and a rib of a seal. Three rib pieces exhibit traces of hacking. Like the ribs found at Shea's Creek, one of the Arakoon bones is deeply scarred and cut by some blunt instrument, in fact even more so than either of those from the metropolitan locality, and a second, the most perfect rib (Plate iv., fig. 2), less so. The bones still retain the solid homogenous appearance and weight characteristic of those of the Dugong; no other objects of interest were discovered during the removal of the midden material. One may infer a considerable age for the Arakoon bones from their appearance, so much so that the markings on the most complete rib have nearly disappeared, but not so with the two smaller portions. At the thicker end of one of the latter (Pl. iv., fig. 1) are several deep sub-parallel cuts lengthwise, united in places by cross-hacking, and at the other end, one or more pieces of bone have been chipped off

³ Ramsay—Cat. N.S. Wales Court Gt. Internat. Fisheries Exhib. Lond., 1883, p. 50.

⁴ Etheridge, David, and Grimshaw—Journ. Roy. Soc. N.S. Wales, xxx., 1896, p. 172.

the surface, but still leaving traces of sharper blows. On the other (Pl. iv., fig. 3), the scars are confined to the centre of the bone and are transverse to its length.

The occurrence of these hacked bones at the Macleay River adds corroborative evidence of the use of the Dugong as food by the old Aborigines just as it is now partaken of by their descendants further north, and adds another record of the animal's presence on a part of the eastern coast-line not now frequented by it. This case may be accepted as an example of the good results likely to arise by a systematic examination of our coast middens before they have totally disappeared through the agency of modern man. The importance of midden exploration cannot be too forcibly impressed on those who may have facilities for such work. It is only through the excavation of similar heaps, the examination of interments, the exploration of the hearth-refuse heaps of rock-shelters, and the opening up of ossiferous caves that we can now hope to learn much about the habits and manners of the earlier inhabitants of this Continent.